

Increasing Incidence of Ciprofloxacin-Resistant *Campylobacter* infections in the United States: FoodNet and NARMS 1997-2001

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Human public health surveillance in the U.S. has identified a decrease in the incidence of *Campylobacter* infections and an increase in the proportion of ciprofloxacin-resistant *Campylobacter* isolates from 1997 to 2001. We used national data to estimate the changes in the incidence of ciprofloxacin-resistant and ciprofloxacin-susceptible *Campylobacter* infections in the U.S.

The Foodborne Diseases Active Surveillance Network (FoodNet) ascertained laboratory-diagnosed *Campylobacter* infections and forwarded isolates to the National Antimicrobial Resistance Monitoring System (NARMS) for susceptibility testing. The number of FoodNet sites increased from 5 in 1997 to 9 in 2001. In 2001, the incidence of *Campylobacter* infections was 14/100,000 persons (range, 32 in California to 7 in Maryland) and the proportion of ciprofloxacin-resistant *Campylobacter* was 19% (range, 30% in California to 9% in Colorado). Using Poisson regression, the modeled incidence of *Campylobacter* infections decreased 33% from 19/100,000 in 1997 to 12/100,000 in 2001. Using logistic regression, the modeled proportion of ciprofloxacin-resistant *Campylobacter* increased 140% from 7% in 1997 to 16% in 2001. Multiplying the modeled incidence by the modeled proportion of ciprofloxacin-resistant isolates, the estimated incidence of ciprofloxacin-resistant *Campylobacter* infections increased 46% from 1.4/100,000 in 1997 to 2/100,000 in 2001 while the estimated incidence of ciprofloxacin-susceptible *Campylobacter* infections decreased 40% from 17/100,000 to 10/100,000 during the same time period.

These data emphasize the need to understand the epidemiology of fluoroquinolone-resistant *Campylobacter* and to mitigate the increasing incidence of fluoroquinolone-resistant *Campylobacter* infection in the U.S.